

OM protein - protein search, using sw model

Run on: May 21, 2003, 11:11:18 ; Search time 29 Seconds

(without alignments)
291.185 Million cell updates/sec

Title: US-09-869-677A-2

Sequence: 287

1 SSTGAKTAKSKDKLVATNS.....PDSYVAMKMKNDKISECL 287

Scoring table:

Gapop 60.0 , Gapext 60.0

Searched: 262574 seqs, 29422922 residues

Word size : 0

Total number of hits satisfying chosen parameters: 262574

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 45 summaries

Database :

- 1: /cgn2_6/prodata/1/1aa/5A.COMB.pep:*
- 2: /cgn2_6/prodata/1/1aa/5B.COMB.pep:*
- 3: /cgn2_6/prodata/1/1aa/6A.COMB.pep:*
- 4: /cgn2_6/prodata/1/1aa/6B.COMB.pep:*
- 5: /cgn2_6/prodata/1/1aa/6C.COMB.pep:*
- 6: /cgn2_6/prodata/1/1aa/6D.COMB.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	28	9.8	310	1	US-07-791-377-2
2	28	9.8	310	4	US-08-356-106-2
3	27	9.4	289	4	US-08-961-083-20
4	27	9.4	309	2	US-08-715-131-2
5	27	9.4	309	4	US-09-221-753-2
6	20	7.0	293	4	US-09-071-035-436
7	20	7.0	316	4	US-09-071-035-494
8	11	3.8	289	4	US-09-071-035-28
9	11	3.8	308	4	US-09-071-035-26
10	8	2.8	309	1	US-08-729-202-1
11	8	2.8	309	1	US-08-896-371-1
12	8	2.8	316	4	US-09-134-001C-5547
13	7	2.4	172	6	5242821-17
14	7	2.4	207	4	US-09-199-637A-211
15	7	2.4	254	1	US-07-667-276A-6
16	7	2.4	724	4	US-09-562-737-24
17	6	2.1	13	2	US-08-760-075A-3
18	6	2.1	13	4	US-09-338-546-3
19	6	2.1	13	4	US-09-659-084-3
20	6	2.1	17	4	US-08-602-999A-445
21	6	2.1	30	4	US-09-500-124-445
22	6	2.1	30	4	US-09-376-113-3
23	6	2.1	56	6	5217896-7
24	6	2.1	65	6	US-09-227-357-612
25	6	2.1	75	6	520958-9
26	6	2.1	81	4	US-09-376-113-2
27	6	2.1	85	4	US-08-858-207A-318

28	6	2.1	111	1	US-07-754-918A-11	Sequence 11, Appl
29	6	2.1	117	4	US-09-046-479-2	Sequence 2, Appl1
30	6	2.1	117	4	US-08-822-897C-2	Sequence 2, Appl1
31	6	2.1	117	4	US-09-608-810A-4	Sequence 4, Appl1
32	6	2.1	124	4	US-09-134-001C-5344	Sequence 5344, Ap
33	6	2.1	127	3	US-08-705-771-12	Sequence 12, Appl
34	6	2.1	141	2	US-08-411-726-5	Sequence 5, Appl1
35	6	2.1	141	6	5217896-3	Sequence 5, Appl1
36	6	2.1	155	4	US-09-615-192A-298	Sequence 284, App
37	6	2.1	161	4	US-08-858-207A-284	Sequence 284, App
38	6	2.1	168	4	US-09-376-113-5	Sequence 5, Appl1
39	6	2.1	172	2	US-08-923-738-2	Sequence 2, Appl1
40	6	2.1	172	2	US-08-923-738-4	Sequence 4, Appl1
41	6	2.1	172	4	US-08-936-165A-385	Sequence 385, App
42	6	2.1	173	1	US-08-193-977-10	Sequence 10, Appl
43	6	2.1	175	4	US-09-376-113-7	Sequence 7, Appl1
44	6	2.1	177	4	US-09-643-597-165	Sequence 165, App
45	6	2.1	177	4	US-09-643-597-166	Sequence 166, App

ALIGNMENTS

RESULT 1
US-07-791-377-2
Sequence 2, Application US/07791377
Patent No. 5422427
GENERAL INFORMATION:
APPLICANT: Russell, Harold
APPLICANT: Tharpe, Jean A.
APPLICANT: Sampson, Jacquelyn
APPLICANT: O'Connor, Steven P.
TITLE OF INVENTION: PNEUMOCOCCAL FIBRILLAR PROTEIN A
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: CUSHMAN, DARBY & CUSHMAN
STREET: 1615 L. Street, N.W.
CITY: Washington
STATE: D.C.
COUNTRY: USA
ZIP: 20036-5601
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/07791,377
FILING DATE: 19911121
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Scott, Watson T.
REGISTRATION NUMBER: 26,581
REFERENCE/DOCKET NUMBER: WTS/5683/91969
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 861-3000
TELEFAX: (202) 822-0944
TELEX: 6714627 CUSH
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 310 amino acids
TYPE: AMINO ACID
TOPOLOGY: linear
MOLECULE TYPE: protein
US-07-791-377-2
Query Match 9.8%; Score 28; DB 1; Length 310;
Best Local Similarity 100.0%; Pred. No. 3.2e-19;
Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
DB 181 IYVSECCFFYFSKAYGVSATYWEINTE 208
202 IYVSECCFFYFSKAYGVSATYWEINTE 229

RESULT 5

AAV30350 standard; Protein: 309 AA.

AAV30350:

09-NOV-1989 (first entry)

37 kDa pneumococcal surface adhesion A protein (PsaA).

Pneumococcal surface adhesion A protein: PsaA: monoclonal antibody;
KM vaccine; Streptococcus pneumoniae infection.

Streptococcus pneumoniae.

MO945121-A1.

10-SEP-1999.

26-FEB-1999: 99MO-US04-26.

02-MAR-1998: 98US-0076565.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Ades EM, Carlone GM, Sampson JS, Tharpe JA, Westerink MAJ,
Zeller JL;

WPI: 1999-540849/45.

N-PSDB; AA210411.

New peptides corresponding to Streptococcus pneumoniae PsaA, used
for treating or preventing Streptococcus pneumoniae infection in a
subject

Example 8; Page 53-54; 58pp: English.

The present sequence represents a pneumococcal surface adhesion A
protein (PsaA). The specification describes monoclonal antibodies which
bind epitopes of the PsaA protein (see AAV30351-54). These peptides can
be used in vaccines to prevent Streptococcus pneumoniae infections. The
antibodies of the invention can also be used to detect S. pneumoniae in
a sample or individual.

Sequence 309 AA:

Query Match 80.0%; Score 1179.5; DB 20; Length 309;

Best Local Similarity 78.4%; Pred. No. 2.9e-90;

Matches 225; Conservative 30; Mismatches 31; Indels 1; Gaps 1;

2 STGAK-TAKSDKLVAVNSIADMTKAIAGDKIDLSIVPIGDPHEPEPLPEDEAKTS 60
21 ASGKDDTSGQKLKAVVATNSIADITKNIAGDKIDLSIVPIGDPHEPEPLPEDEAKTS 80
61 NADVIFYNGINLEDGQAMFTLVNAOKTKKDYFAVSDGIDVYLLSGASEKGEDPHA 120
81 EADLIFYNGINLETGNAFETLVENAKTEKDYFAVSDGIDVYLLSGASEKGEDPHA 140
121 WLNENGIISYKNIKOLIADPKPKETEKYLKAYVAKLEKDEKASKDAIAENKTL 180
141 WLNENGIISYKNIKOLIADPKPKETEKYLKAYVAKLEKDEKASKDAIAENKTL 200
181 IYTSKGKRYFSKAVGSAYIWEINTEEGTPDOISSLIETKIKYKPSALFVSSVDR 240
201 IYTSKGKRYFSKAVGSAYIWEINTEEGTPDOISSLIETKIKYKPSALFVSSVDR 260
241 PNEYVSKDGIPIYSEITFDSIAKKGKGDSDYAMKKNLDRKISGL 287
261 PNEYVSKDGIPIYSEITFDSIAKKGKGDSDYAMKKNLDRKISGL 307

AAW82496 standard; Protein: 309 AA.

AAW82496:

04-MAR-1999 (first entry)

S. pneumoniae 37-kDa surface adhesion A protein.

Surface adhesion A protein: vaccine; detection; serotype; antibody;
diagnostic; immunoassay; treatment; infection; anti-idiotypic.

Streptococcus pneumoniae.

US5854416-A.

29-DEC-1998.

17-SEP-1996: 96US-0715131.

17-SEP-1996: 96US-0715131.

04-APR-1994: 94US-0222179.

(USSH) US DEPT HEALTH & HUMAN SERVICES.

Ades EM, Carlone GM, Russell H, Sampson JS, Tharpe JA;

WPI: 1999-095007/08.

N-PSDB; AAV73914.

Nucleic acid encoding the 37 kDa, surface adhesion A of Streptococcus
pneumoniae - useful diagnostically and for production of
recombinant polypeptides

Claim 1; Column 33-34; 20pp: English.

This sequence represents a Streptococcus pneumoniae 37-kDa surface
adhesion A protein. This encoding nucleic acid can be used in methods to
express recombinant protein, as a source of primers for amplification (to
identify and isolate related sequences, e.g. allelic variants) or probes
for nucleic acid hybridisation tests for detecting S. pneumoniae, and in
DNA vaccines. This protein and its fragments can be used to raise
antibodies. In vaccines and for detecting S. pneumoniae by reaction with
specific antibodies. Antibodies are useful in diagnostic immunoassays,
to treat infections and to raise anti-idiotypic antibodies for use in
vaccines. This protein is very highly conserved between the different
serotypes of S. pneumoniae so is an excellent candidate for vaccine
development.

Sequence 309 AA:

Query Match 80.0%; Score 1179.5; DB 20; Length 309;

Best Local Similarity 78.4%; Pred. No. 2.9e-90;

Matches 225; Conservative 30; Mismatches 31; Indels 1; Gaps 1;

2 STGAK-TAKSDKLVAVNSIADMTKAIAGDKIDLSIVPIGDPHEPEPLPEDEAKTS 60
21 ASGKDDTSGQKLKAVVATNSIADITKNIAGDKIDLSIVPIGDPHEPEPLPEDEAKTS 80
61 NADVIFYNGINLEDGQAMFTLVNAOKTKKDYFAVSDGIDVYLLSGASEKGEDPHA 120
81 EADLIFYNGINLETGNAFETLVENAKTEKDYFAVSDGIDVYLLSGASEKGEDPHA 140
121 WLNENGIISYKNIKOLIADPKPKETEKYLKAYVAKLEKDEKASKDAIAENKTL 180
141 WLNENGIISYKNIKOLIADPKPKETEKYLKAYVAKLEKDEKASKDAIAENKTL 200
181 IYTSKGKRYFSKAVGSAYIWEINTEEGTPDOISSLIETKIKYKPSALFVSSVDR 240
201 IYTSKGKRYFSKAVGSAYIWEINTEEGTPDOISSLIETKIKYKPSALFVSSVDR 260
241 PNEYVSKDGIPIYSEITFDSIAKKGKGDSDYAMKKNLDRKISGL 287
261 PNEYVSKDGIPIYSEITFDSIAKKGKGDSDYAMKKNLDRKISGL 307

fimbrial adhesin fima precursor - Streptococcus parasanguis
 C:Species: Streptococcus parasanguis
 C>Date: 31-Jan-1992 #sequence_revision 31-Jan-1992 #text_change 17-Nov-2000
 C:Accession: A37186; S61912
 R:Femo, J.C.; Leblanc, D.J.; Fives-Taylor, P.
 A>Title: Nucleotide sequence analysis of a type 1 fimbrial gene of Streptococcus sanguis
 Infect. Immun. 57, 3528-3533, 1989
 A:Reference number: A37186; PMID:90035427; PMID:2572555
 A:Accession: A37186
 A>Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-309 <FEN1>
 A:Cross-references: GB:M26130; NID:9567768; PIDN:AAA53077.1; PID:G153834
 Experimental source: strain FW213
 Femo, J.C.; Shaikh, A.; Spallora, G.; Fives-Taylor, P.
 A>Title: The fima locus of Streptococcus parasanguis encodes an ATP-binding membrane tri
 A:Reference number: S61910; PMID:95319327; PMID:7596287
 A:Accession: S61912
 A>Status: nucleic acid sequence not shown; translation not shown
 A:Molecule type: DNA
 A:Residues: 1-309 <FEN2>
 A:Cross-references: EMBL:M26130; NID:9567768; PIDN:AAA53077.1; PID:G153834
 A:Experimental source: strain FW213
 A>Note: the nucleotide sequence was submitted to the EMBL Data Library, October 1994
 A>Note: this publication is not cited in GenBank entry STRSRA, release 117.0
 C:Genetics:
 A:Gene: fima
 C:Superfamily: adhesin B
 C:Keywords: blocked amino end; lipoprotein; membrane protein
 F:1-20/Domains: signal sequence; status predicted <SIG>
 F:21-309/Product: fimbrial adhesin fima #status predicted <MAT>
 F:21/Binding site: sn-2,3-diacetylglucosyl (Cys) (covalent) #status predicted
 F:21/Modified site: fatty acylated amino end (Cys) (in mature form) #status predicted

Query Match 11.5%; Score 33; DB 2; Length 309;
 Best Local Similarity 100.0%; Pred. No. 1.2e-15;
 Matches 33; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

181 IYTSGCCFKYKSKAYGVPSATYWEINTEECTP 213
 |||||||
 201 IYTSBCKFKYKSKAYGVPSATYWEINTEECTP 233

RESULT 3
 195191
 Hypothetical protein SP1650 [imported] - Streptococcus pneumoniae (strain TIGR4)
 C:Species: Streptococcus pneumoniae
 C>Date: 03-Aug-2001 #sequence_revision 03-Aug-2001 #text_change 24-Aug-2001
 C:Accession: H95191
 A:Title: Umayam, L.A.; White, E.; Salberg, S.L.; Lewis, M.R.; Radune, D.; Holtzaple,
 son, T.; Hickey, E.K.; Holt, I.E.
 science 293, 498-506, 2001
 A:Authors: Loftus, B.J.; Yang, F.; Smith, H.O.; Venter, J.C.; Dougherty, B.A.; Morrison,
 A:Reference number: A50000; PMID:21357209; PMID:11463916
 A:Accession: H95191
 A>Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-309 <KUR>
 A:Cross-references: GB:AE005672; PIDN:AAK5729.1; PID:G14973140; GSPDB:GN00164; TIGR:SP4
 Experimental source: strain TIGR4
 C:Genetics:
 A:Gene: adhesin B

9.4%; Score 27; DB 2; Length 309;
 100.0%; Pred. No. 1.7e-19;
 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 IAGDKIDLSIYPIGDPHEYPELPED 55
 |||||||
 DB 49 IAGDKIDLSIYPIGDPHEYPELPED 75

RESULT 4
 E98058
 Hypothetical protein psaA [imported] - Streptococcus pneumoniae (strain R6)
 C:Species: Streptococcus pneumoniae
 C>Date: 22-Oct-2001 #sequence_revision 22-Oct-2001 #text_change 02-Nov-2001
 C:Accession: E98058
 R:Hoskins, J.A.; Alborn Jr., W.; Arnold, J.; Blaszcak, L.; Burett, S.; Dehoff, B.S.;
 e, R.; Leblanc, D.J.; Lee, L.N.; Lefkowitz, E.J.; Lu, J.; Matsushima, P.; McWhren, S.
 y, P.; Sun, P.M.; Winkler, M.E.
 J. Bacteriol. 183, 5709-5717, 2001
 A:Authors: Yang, Y.; Young, B.; Baldo, M.; Zhao, G.; Zook, C.; Baltz, R.H.; Jaskunas, S.
 A:Title: Genome of the Bacterium Streptococcus pneumoniae Strain R6.
 A:Reference number: A97872; PMID:21429245; PMID:11544234
 A:Accession: E98058
 A>Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-309 <KUR>
 A:Cross-references: GB:AE007311; PIDN:AAL00298.1; PID:G15459154; GSPDB:GN00174
 C:Genetics:
 A:Gene: psaA
 C:Superfamily: adhesin B

Query Match 9.4%; Score 27; DB 2; Length 309;
 Best Local Similarity 100.0%; Pred. No. 1.7e-19;
 Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 29 IAGDKIDLSIYPIGDPHEYPELPED 55
 |||||||
 DB 49 IAGDKIDLSIYPIGDPHEYPELPED 75

RESULT 5
 A43583
 Adhesin B precursor - Streptococcus sanguis
 C:Species: Streptococcus sanguis
 C>Date: 12-Jan-1993 #sequence_revision 12-Jan-1993 #text_change 24-Sep-1999
 C:Accession: A43583
 R:Ganeskumar, N.; Hannam, P.M.; Kolenbrander, P.E.; McBride, B.C.
 Infect. Immun. 59, 1093-1099, 1991
 A:Title: Nucleotide sequence of a gene coding for a saliva-binding protein (Ssab) fro
 A:Reference number: A43583; PMID:9147187; PMID:1671775
 A:Accession: A43583
 A>Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-309 <GAN>
 A:Cross-references: GB:M63481; NID:G153825; PIDN:AAC98426.1; PID:G153826
 C:Superfamily: adhesin B

Query Match 7.0%; Score 20; DB 2; Length 309;
 Best Local Similarity 100.0%; Pred. No. 2.7e-12;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 111 SEKKEDPHAMTLENGITY 130
 |||||||
 DB 131 SEKKEDPHAMTLENGITY 150

RESULT 6
 T1151
 Adhesin - Streptococcus gordonii
 C:Species: Streptococcus gordonii
 C>Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 26-Aug-1999
 C:Accession: T1151
 R:Kolenbrander, P.E.; Andersen, R.N.; Ganeskumar, N.
 Infect. Immun. 62, 4469-4480, 1994
 A:Title: Nucleotide sequence of the Streptococcus gordonii PK488 coaggregation adhesi
 A:Reference number: 217283; PMID:95012678; PMID:7000000